

A NEW SPECIES IN *HELIOTROPIMUM* (BORAGINACEAE) AND A NEW COMBINATION IN *ABUTILON* (MALVACEAE)

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Abstract

A new species, *Heliotropium flintii* F. Muell. ex A.S. Mitchell is described and illustrated and a new combination in *Abutilon* (*A. lepidum*) based on *Sida lepidula* F. Muell. is made for the Flora of Central Australia.

***Heliotropium flintii* F. Muell. ex A.S. Mitchell sp. nov.**

Suffrutex indumento adpresso argenteo-cano. Folia alterna linearia vel angusto-lanceolata recurvata 8-20 mm longa. Flora 2-seriales, cyman foliaceam secundam scorpioideam facientes. Calyx 4-5 mm longus 5 lobis lineari-lanceolatis. Corolla 6-8 mm longa, extus pilosa intus glabra, alba fragrans. Antherae 3-5 inclusae, ad apicem cohaerentes. Fructus plerumque abortu uno mericarpio, adpressis antrorsis pilis.

Erect *subshrub* to 25 cm tall, densely tomentose with appressed silvery-grey hairs, the outer covering of the stem often peeling away like bark. *Leaves* alternate, linear or narrow-lanceolate, recurved, 8-20 mm long. *Flowers* in 2 rows, forming a loose or dense leafy one-sided scorpid cyme. *Calyx* 4-5 mm long, deeply divided into 5 linear-lanceolate lobes, the outer ones broader. *Corolla* 6-8 mm long; the tube densely hairy with tangled simple hairs except at the base, constricted above the ovary and slightly swollen about the middle, glabrous inside; the limb spreading, lobes ovate to rhomboid; white, fragrant. *Anthers* 3-5, on short filaments, included in the throat, acuminate, cohering at their minutely hairy apices. *Stigma* a fleshy ring at the base of a central cone, shorter than the style. *Fruit* more often reduced to one mericarp by abortion, covered with simple appressed upward pointing hairs.

Holotype: "Between McDonnell's Range and the boundary of Qld." E. Flint, 1882. MEL 90932.

Distribution and habitat

In the southern Northern Territory from Alice Springs ENE along the Plenty Highway to the Queensland border, with isolated collections north-west of Alice Springs as far as the Tanami. Found on the rocky slopes of hills.

Notes

This species is probably best placed in Bentham's section *Euheliotropium* (Fl. Aust. 4 (1869) 392-3), though it does not exactly agree with the diagnostic characters given in that it has acuminate anthers cohering at their apices. One interesting point is that the fruit is often reduced to one mericarp by abortion, whereas other species either have four 1-seeded nuts, or less commonly two 2-seeded nuts.

Specimens examined

NORTHERN TERRITORY: 10 km N Alice Springs 23°35' 133°53', G. Chippendale 484, 10.xi.1954 (NT); 6 km N Alice Springs 23°38' 133°53', G. Chippendale 1665, 14.ix.1955 (NT, NSW, MEL); White Range, 5 km NE Arltunga 23°27' 134°43', G. Chippendale 4101, 26.iii.1958 (NT, BRI, NSW, CANB, MEL); 1 km N Mirror Finish Mine, Huckitta 23°07' 135°25', P.K. Latz 1127, 7.i.1971 (NT); Christmas Dam, Marqua 22°53' 137°35', P.K. Latz 2616, 24.v.1972 (NT, BRI, PERTH); 11 km SW Indiana Station 23°24' 135°22', M. Lazarides 5969, 11.ix.1956 (NT, CANB); 6 km N Sangsters Bore, Tanami 20°47' 130°22', J.R. Maconochie 998, 21.iv.1971 (NT, BRI, CANB); Wiggleys Waterhole, 10 km N Alice Springs 23°38' 133°53', A.S. Mitchell 216, 24.ii.1975 (NT, PERTH); 16 km N Alice Springs 23°33' 133°50', D.J. Nelson 1371, 19.x.1964 (NT, MEL); 5 km S Greentree Dam, Hamilton Downs 23°35' 133°32', D.J. Nelson 2294, 1.viii.1973 (NT, CANB).

Abutilon lepidum (F. Muell.) A.S. Mitchell comb. nov.*Basionym:* *Sida lepidum* F. Muell., *Fragm.* 6 (1868) 168.*Lectotype:* (? Dr. Martin) s.n., Camden Harbour. MEL 53621.*Typification*

Mueller described this species from two syntypes—"In vicinia portus Walcott; C. Harper. Ad Camden Harbour; Dr. Martin." The Camden Harbour sheet (MEL 53621) unfortunately, does not list the collector. However, it was not unusual for Mueller's label annotations to appear somewhat differently in print to how they actually did on the label. The entire holdings of *S. lepidum* in MEL were examined, and there is nothing to suggest that MEL 53621 was not collected by Dr. Martin. It is a much more complete specimen than that from Port Walcott (MEL 53624), and so is proposed as the lectotype.

Distribution and habitat

Found on sandy, alluvial or gravelly soils in the north-west of Western Australia (Hamersley Ranges) with scattered occurrences through the Great Sandy Desert and as far east as Hermannsburg (SW of Alice Springs, N.T.), though rare there.



Fig. 1. *H. flintii* F. Muell. ex A.S. Mitchell. A, inflorescence, x 5; B, cross-section of corolla showing coherent anthers, x 10; C, gynoecium showing prominent fleshy ringed stigma at the base of the central column, x 45. (A-C, Latz 1127).

Notes

The fruits of this taxon are narrow, chartaceous and dehiscent and, apart from the fact that they are one-seeded, rather than the normal two, fit the genus *Abutilon* much better than they do *Sida*. One interesting point is the fact that the yellow-orange flowers usually dry blue or purple, a characteristic apparently restricted to this species in the genus.

Specimens examined

WESTERN AUSTRALIA: Yampire Gorge 22° 24' 118° 28', *A.C. Beaglehole* 48533, 7.viii.1974 (NT); Dales Gorge 22° 30' 118° 36', *A.C. Beaglehole* 48612, 8.viii.1974 (NT); 18 km NE Mary River Crossing, Great Northern Highway, *A.C. Beaglehole* 53284, 19.vi.1976 (NT); 5 km from Learmouth Camp, Cape Range 22° 20' 113° 56', *Y. Chadwick* 1462, 7.ix.1964 (PERTH); Nichol Bay, *W.K. Cussack s.n.*, 1897 (MEL); Sherlock River, *J. Forrest s.n.*, n.d. (MEL); between the Sherlock and Yule River, *J. Forrest s.n.*, 1878 (MEL); Menilyalya River, *J. Forrest s.n.*, 1882 (MEL); Gascoyne River, *J. Forrest s.n.*, 1882 (MEL); 40 km E Bullara Homestead 22° 41' 114° 27', *A.S. George* 1203, 29.viii.1960 (PERTH); 22 km E Bullara Homestead 22° 41' 114° 16', *A.S. George* 1246, 29.viii.1960 (PERTH); Peeawal Station, *A.S. George* 3407, 25.ii.1967 (PERTH); Yardie Station 21° 53' 114° 01', *A.S. George* 6654, 27.v.1965 (PERTH); Dovers Hills 23° 08' 128° 40', *A.S. George* 8997, 27.vii.1967 (PERTH); Anketell Ridge 20° 24' 122° 07', *A.S. Mitchell* 1206, 14.v.1979 (NT); 90 km N Nullagine 21° 03' 120° 07', *A.S. Mitchell* 1240, 17.v.1979 (NT).

NORTHERN TERRITORY: Mt Liebig 23° 18' 131° 22', *A.C. Beaglehole* 46062, 28.vi.1974 (NT); Hermannsburg 23° 55' 132° 45', *G. Griffin* 4, ix.1972 (NT); Finke River 23° 55' 132° 45', *H. Kempe* 509, 1882 (MEL).

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